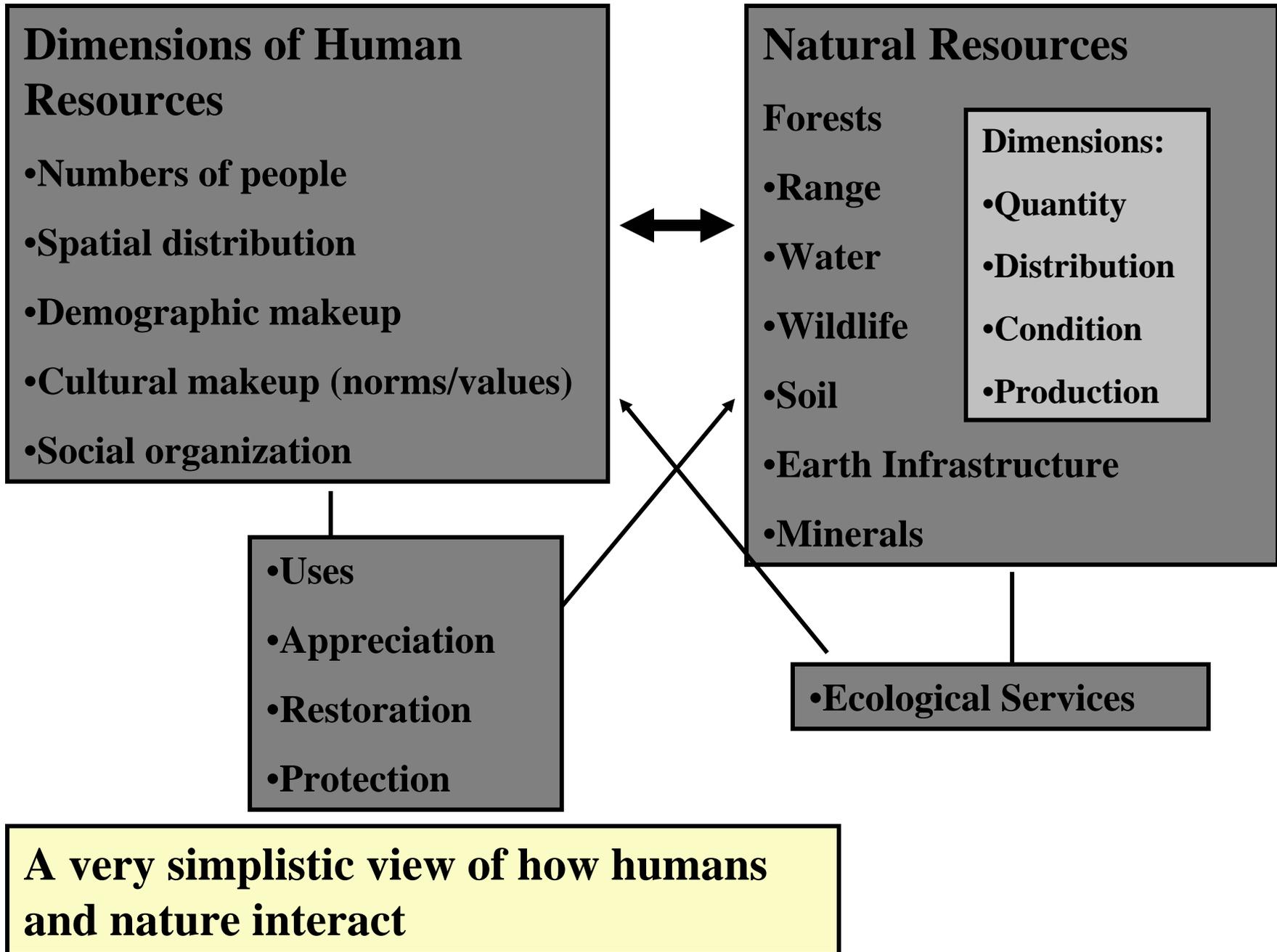


2010 RPA Assessment---5 Assessment Products from Athens GA team

- **Population and demographics (current situation, recent trends and future social change---the human dimension—world, U. S. and regions)**
- **Natural resource values in modern society**
- **Relationships between social trends and natural lands (Footprints = hotspots)**
- **Outdoor recreation, tourism and amenity migration trends and projections**
- **Wilderness and other protected lands**

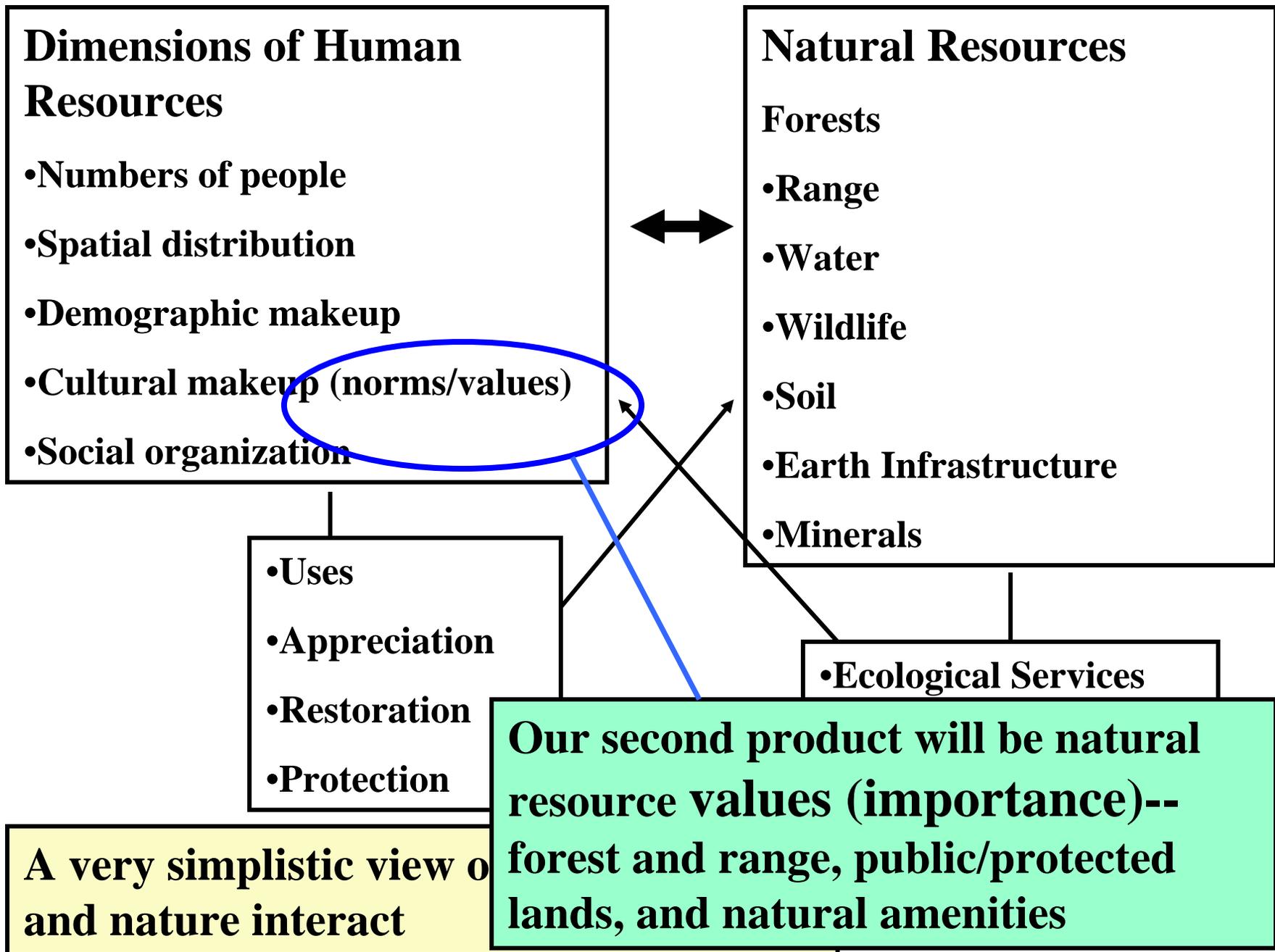
September 11-14, 2007, Ft. Collins CO



Projections exploration at SRS:

- Worked first from state level projections (Census, WP and local one from each state)
- State projections are a ‘mixed bag’, some going to 2015 or 2020 and others past 2050. Majority are out to 2030 at 5-year intervals, similar to Census and Woods & Poole.
- State-level Census, WP, and State projections were plotted on line graphs for (total, density, change, etc., etc.)
- A mean population projection was calculated to 2030 from Census, WP and State projection series for each state and year combination.
- State projections were disaggregated to county scale proportionate to W&P

Map of USA counties



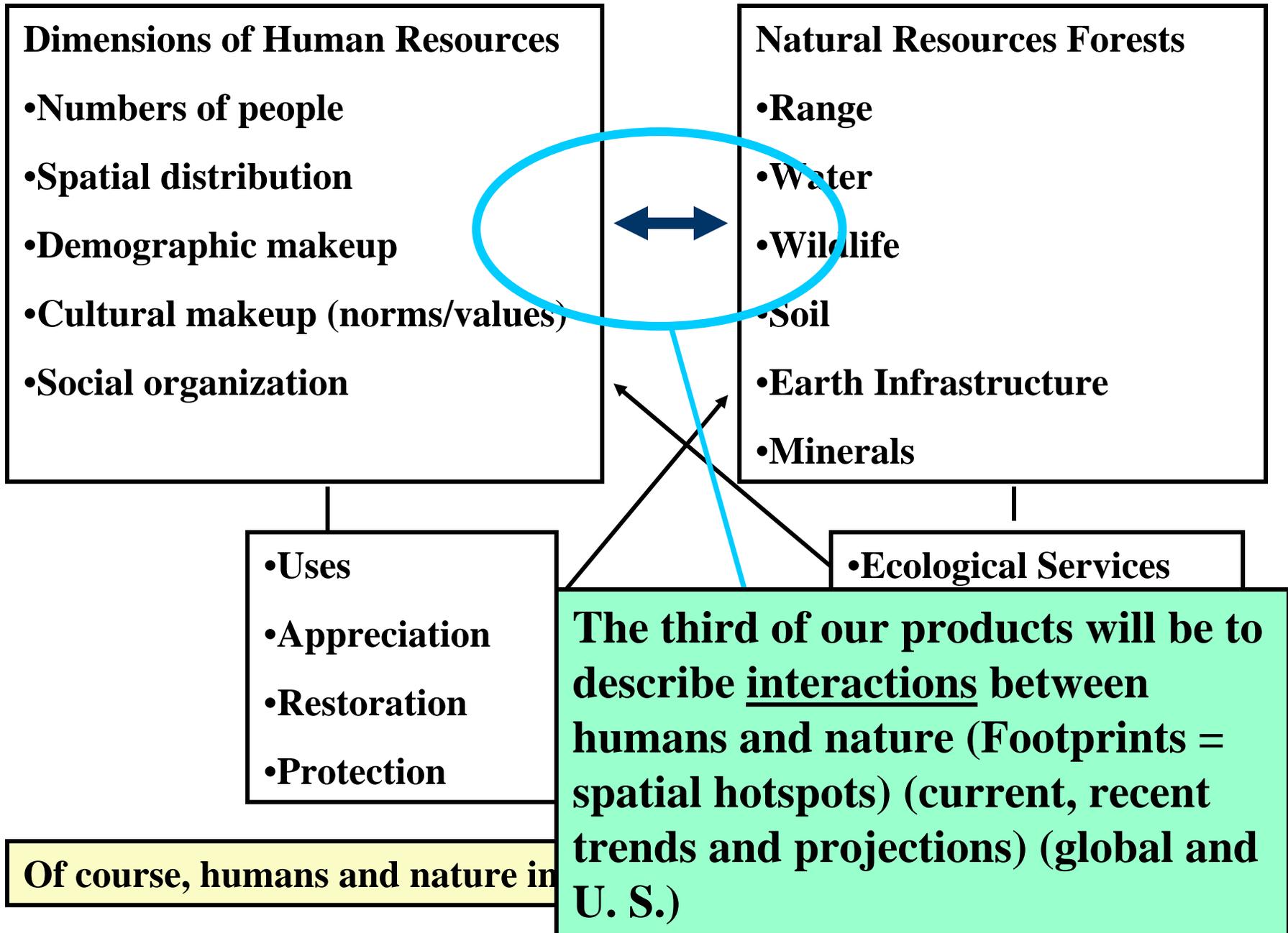
WHAT DOES THE U.S. PUBLIC SEE AS IMPORTANT IN OUR PUBLIC LANDS??

- Provide permits to ranchers for grazing of livestock
- Maintain public lands for future generations to enjoy
- Provide access, facilities and services for outdoor recreation
- Provide quiet, natural places for personal renewal
- Use and manage public areas in ways that leave them natural in appearance
- Emphasize planting/management of trees for abundant timber supply
- Provide access to raw materials and products for local industries and communities
- Protect streams and other sources of clean water
- Protect rare, unique or endangered plant and animal species
- Provide roads, accommodations and services to help local tourism businesses
- Provide information and educational services about natural areas, their management and the natural life in them

Another source will be the NSRE and the surveying we did for NFS---Applies to all public lands

Another source, Amenities Index---Will be developed as original work

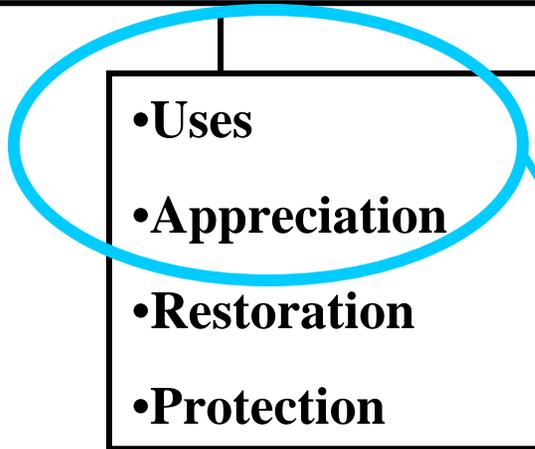
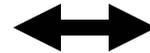
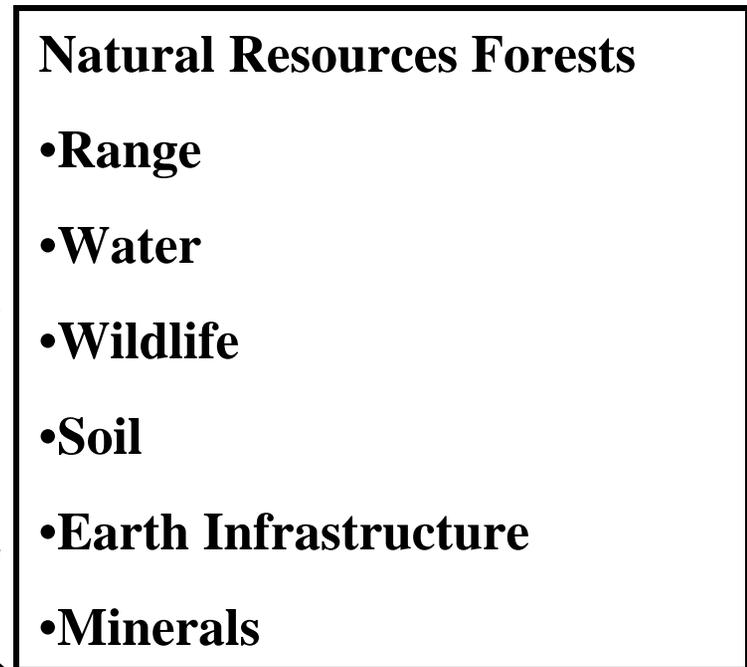
- **McGranahan has not updated his ERS natural amenities index nor is he aware of any similar recent work. Components of his 1999 index have not changed (e.g., water, mountains, climate..) He has an article in review that models pop. growth as a fn. Of landscape preferences.**
- **Johnson and Beale, 2002, Vol. 17 No. 4 is another possibility. They are looking at seasonal housing and tourism-related wages and receipts in order to classify counties**
- **Also use innovations from McLeod, U Wy. And Deller at U. Wisc. On Natural Amenities.
<http://www.uwyo.edu/openspaces/MediaFiles/DonMcLeod.pdf>)**
- **Stephan Goetz at Penn State has done migration and immigration work that includes some work on environmental attractions.**



Footprints on the Land

- **Describes human society currently, recent trends, and futures in terms of number, spatial distribution, demographics, what is important to whom, and what change might mean**
- **Describes current resource conditions and futures (links to resource specialists)**
- **Examines spatial interaction between nature and humans (footprints = hotspots) (also links to specialists)**

Hopeful of getting a key indicator as an output representing each resource specialist (forest, range, water, wildlife habitat, fish habitat, coast?)



The fourth product will describe recreation use and appreciation of natural lands: activity participation, tourism, nature as an amenity (current, recent trends and projections) (global and U. S.)

Of course, humans and nature interact

Stages of Natural Amenity Draw

- **Day or overnight visits in areas with natural settings for recreation (short visits)**
- **Vacations and extended stays in areas with natural amenities (tourism)**
- **Ownership of vacation/seasonal homes in amenity areas (ownership or leasing)**
- **Migration to establish permanent residence in high amenity areas**

Recreation visits (“demand”) to areas with natural attractions

- **Population-wide participation at national to county levels (from NSRE with focus on nature-based activities, especially in forests, range, water, snow and urban)**
- **Outdoor participation by youth (6 – 19, and reasons for low participation) (NSRE)**
- **Visitation to public lands, federal and state (with an emphasis on National Forests and National Parks)**
- **Recreation use of private lands and water (NSRE)**
- **Forecasts of population-wide outdoor recreation (NSRE) and of visitation to National Forests (NVUM)**
- **Recreation issues, especially off-highway vehicles and access**

NSRE 1994 - 2008

- **Recently completed sample included over 95,000 households**
- **Forest Service R&D, UT and UGA manage survey**
- **2000-08 surveying done by UT Human Dimensions Laboratory (Surveying every day since fall 1999)**
- **General sponsorship—SRS, RPA, NOAA, EPA, ERS, NPS, BLM, Coast Guard, NAARP, states, R5, R8**
- **Others involved, NFs in the South, Southern Forest Resources Assessment, National Scenic Byways, Heritage, Wilderness, Numerous State Agencies, Bicycle Safety, Campaign for America's Wilderness, NRCS, Montreal Process,**

A focus on indicator activities across households

- **Birding**
- **Equestrian**
- **Hiking/Backpacking**
- **Canoeing/Kayaking/Rafting**
- **Fishing (Stan)**
- **Snow Skiing/Snow Boarding**
- **Motorized Off-Road Use**
- **Motorized Water Use**

Analysis results needed for each activity:

- **Participation and historic trend (participants and days)**
- **Regional differences (#, %, and days)**
- **County patterns (no. and %)**
- **Demographic patterns (% of each stratum participating and % of participants across strata)**
- **Projected trend (no., % and days)**
- **Associated issues**

Forecasts

Project LE

Population-wide and NF forecasts will be updated

Activities	(1995)	People	Days	Trips
Land-Based				
Sightseeing	113	1.32	1.43	1.43
Non-consumptive wildlife	117	1.29	1.09	1.15
Biking	57	1.28	1.25	1.45
Family Gatherings	124	1.24	1.23	0.83
Hiking	48	1.23	1.24	1.23
Horseback Riding	14	1.23	1.22	1.29
Rock Climbing	8	1.21	1.15	1.03
Walking	134	1.21	1.29	--
Camping	42	1.19	1.36	1.30
Backpacking	15	1.11	1.15	1.08
Off-Road Driving	28	1.05	0.99	1.06
Hunting	19	0.91	0.99	1.03

Models will consider changing tastes, incomes, distribution, price, and nature-based opportunities

Forecasts

Stages of Natural Amenity Draw

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NSRE second home ownership

- Proportions owning
- Demographics and place of primary residence
- Activity profiles
- Regional differences

Can add maps showing density of seasonal housing units, condos, RV lease parks, resorts with ownership,

Need additional sources for this stage of natural amenity draw

Stages of Natural Amenity Draw

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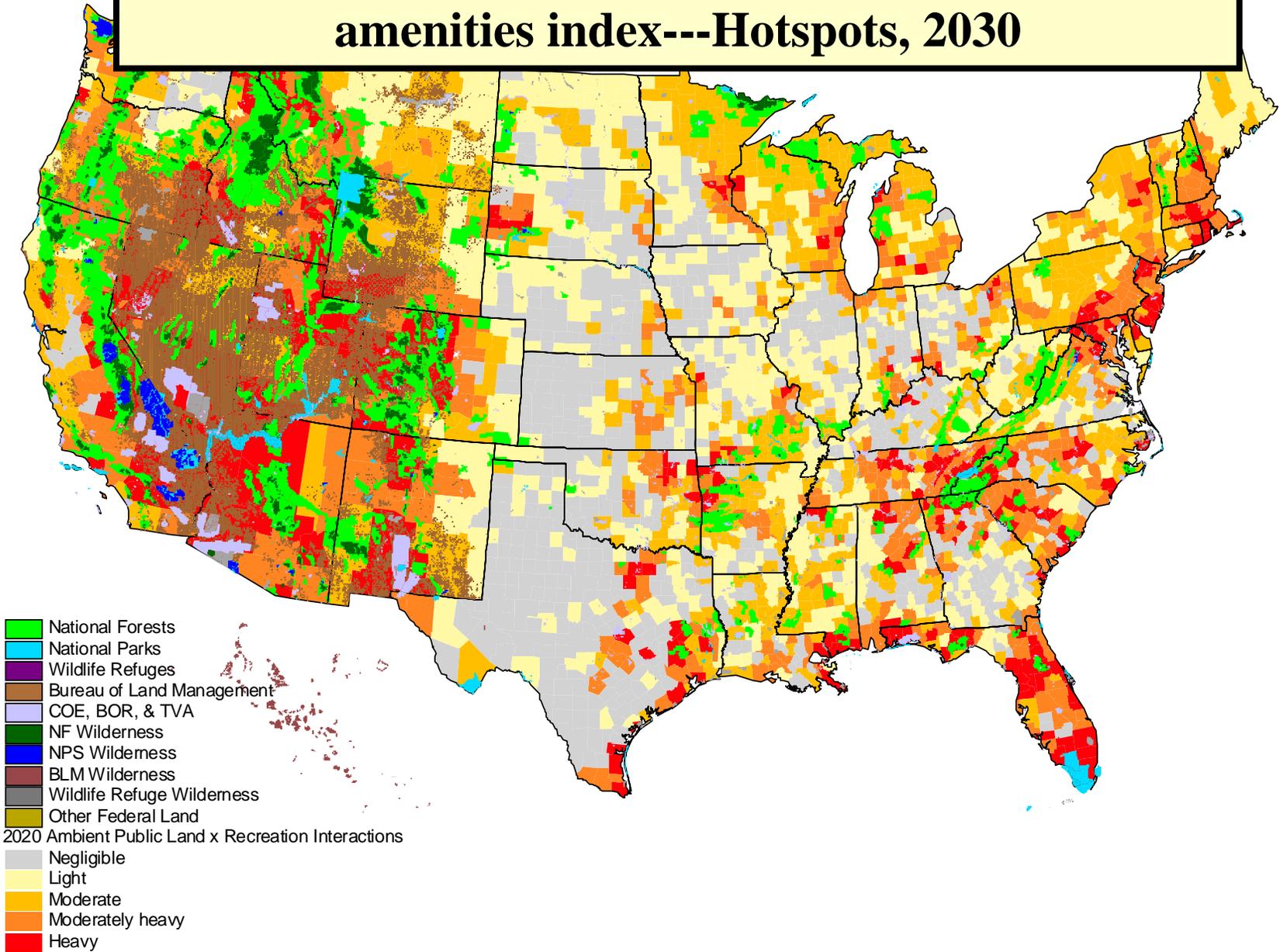
Demand Side

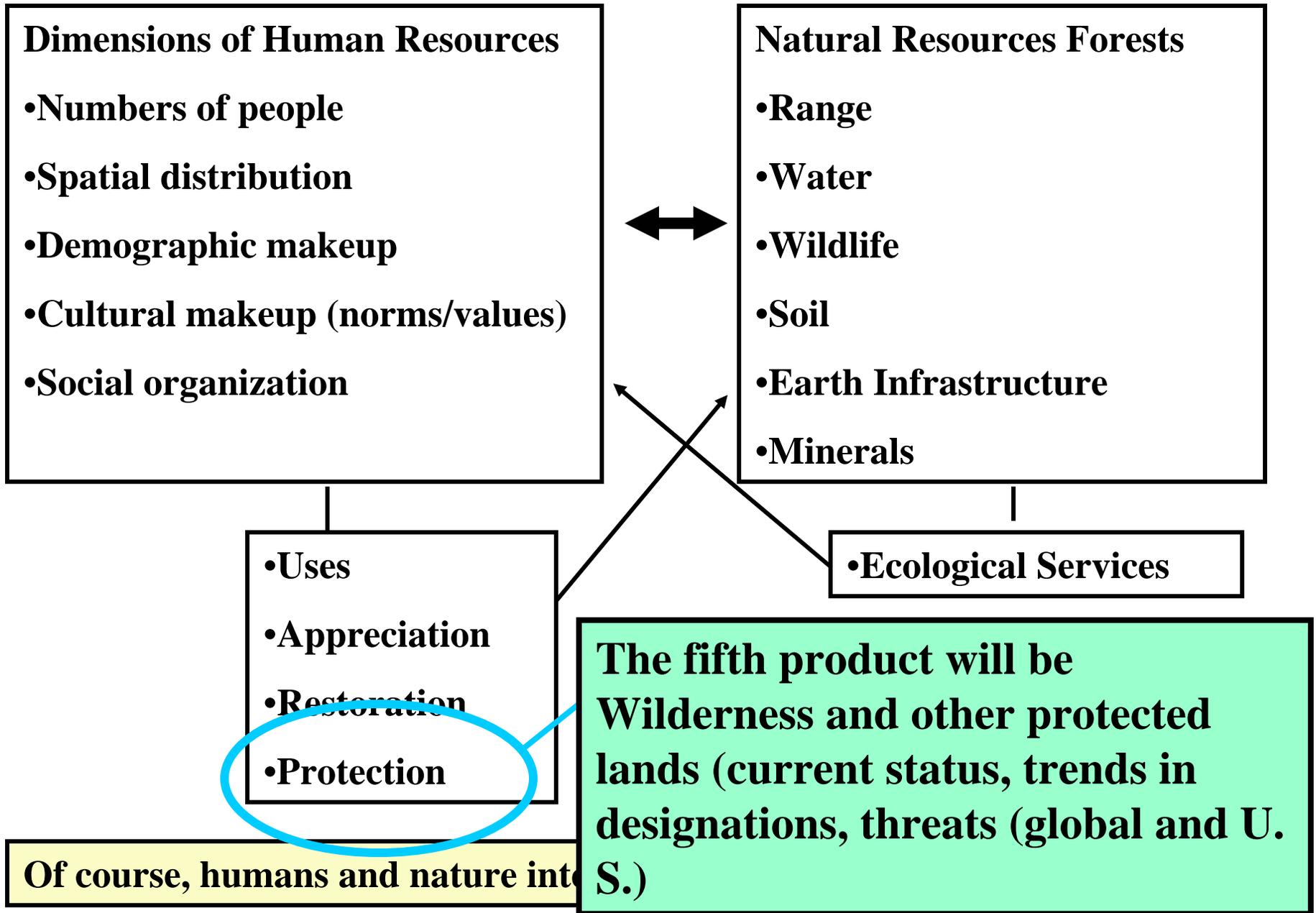
SUPPLY of recreation opportunities and natural amenities

- **Federal and state lands**
- **Local parks and recreation areas**
- **Urban forest and open space (?)**
- **Private lands and water (NSRE)**
- **Open space generally (needs definition and data population)**
- **Natural Amenities Index (land cover, land use, water, mountains, features, public lands, climate, snow, recreation development, infrastructure) (based on landscape and recreation preference studies, plus motivations for moving)**
- **Projection of rural natural amenities (driven by projections of open space, land cover, land use, climate & snow, ??)**

Supply side

County participation patterns overlaid onto amenities index---Hotspots, 2030

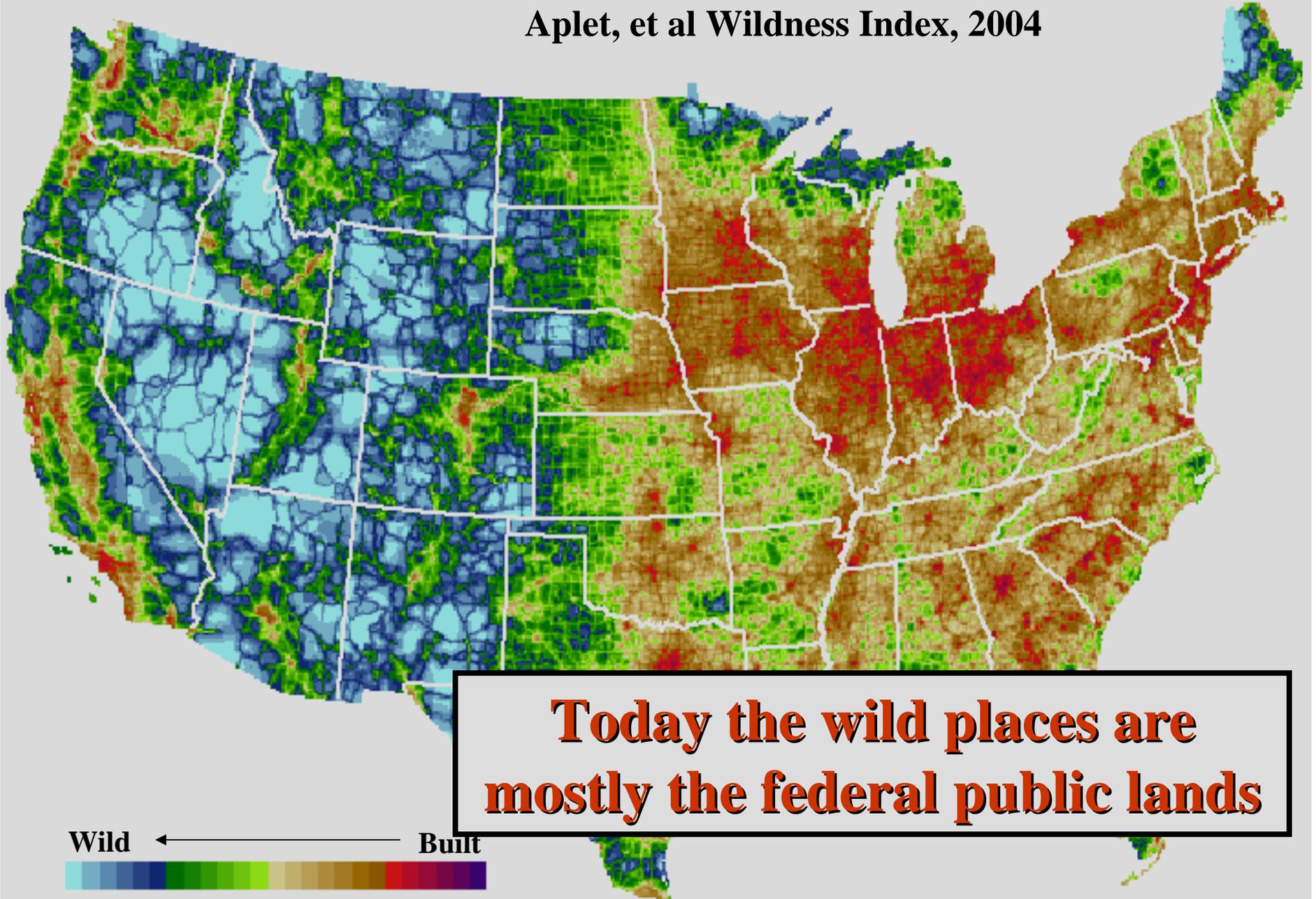




Trends, uses and benefits associated with public lands, particularly Wilderness

- **Current status of public lands and their management**
- **Current status of the Wilderness System**
- **Recreation use of Wilderness and forecasts**
- **Population and development near or within Wilderness**
- **Benefits from protected public lands and how trends in their management might impact benefits**
- **Conservation and protection of private lands (easements, fee systems, etc.) (Randy Johnson, others??)**

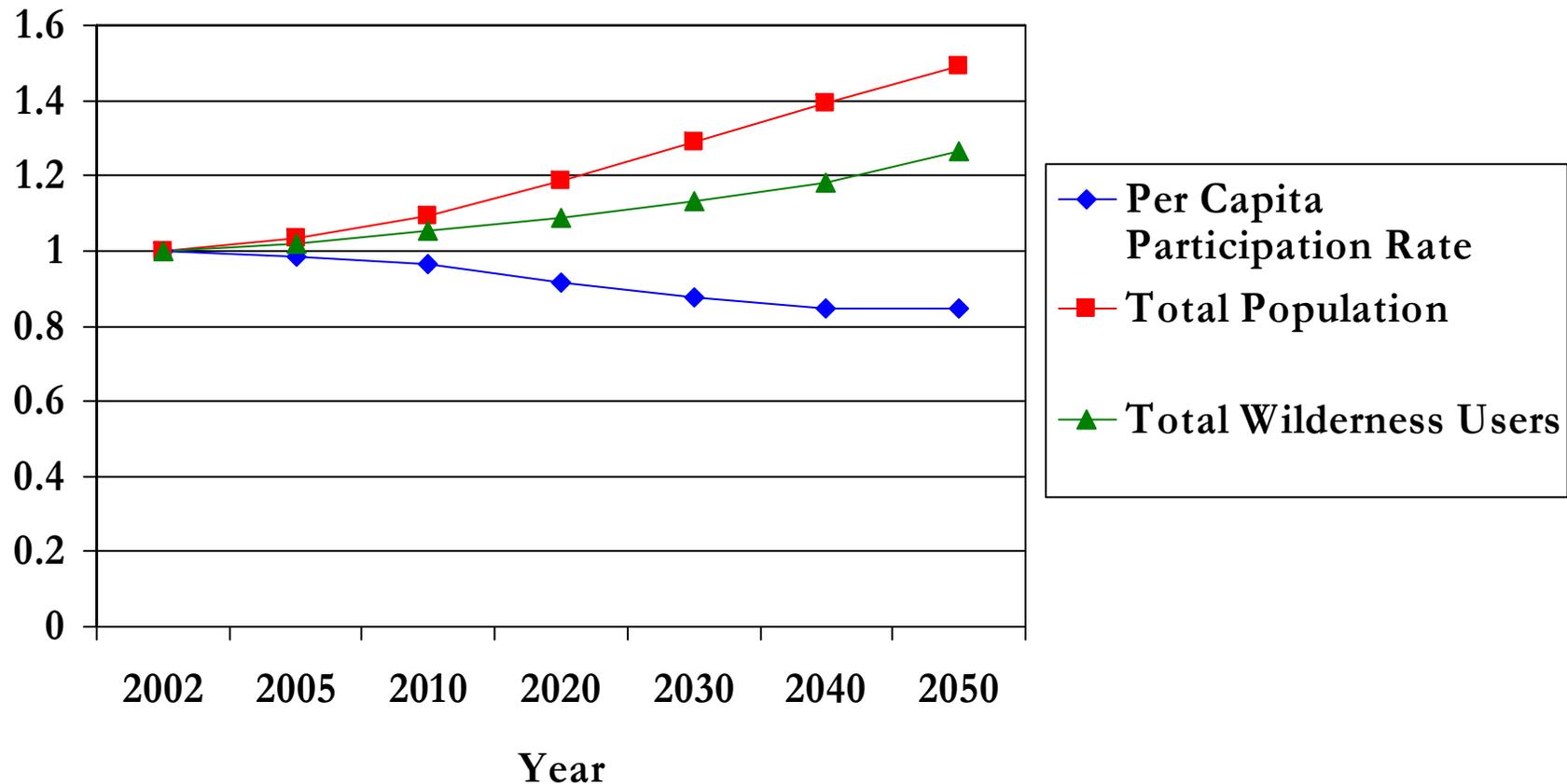
Aplet, et al Wildness Index, 2004



**Today the wild places are
mostly the federal public lands**

Wild ← Built

Wilderness Visitation Index 2002 - 2050



Forecasts of Recreation use in Wilderness are underway

2010 RPA Assessment---5 products

- **Current situation, recent trends and future social change---the human dimension— world, U. S. and regions**
- **Natural resource values in modern society**
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- **Wilderness and other protected lands**

Cordell, Bergstrom, Zarnoch, Bowker, Betz, Green, Stephens, Mou